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#### HAND DELIVERY

December 7, 2015

Mr. Justin Williams Virginia Department of Environmental Quality 629 East Main Street Richmond, VA 23219

### RE: Possum Point Power Station: Solid Waste Application for Closure of CCR Surface Impoundments

Dear Mr. Williams:

Dominion submits the enclosed Part B solid waste permit application package in preparation for closure of five inactive coal combustion residuals (CCR) surface impoundments at Possum Point Power Station. The enclosed solid waste application package is being submitted to request a solid waste permit for closure of the inactive CCR surface impoundments. As previously discussed, the enclosed application package includes the following:

- Solid Waste Disposal Facility Part B Application (DEQ Form SW PTB);
- Notice of Intent for Closure;
- Closure Plan;
- Post-Closure Plan;
- Construction Quality Assurance Plan and Technical Specifications; and
- Groundwater Monitoring Plan.

If you have any questions, please do not hesitate to contact Dennis Slade of Electric Environmental Services at (804) 273-2658.

Sincerely,

Cathy C. Taylor

Director, Electric Environmental Services

Enclosures

### Solid Waste Disposal Facility Part B Permit Application

Virginia Electric and Power Company Possum Point Power Station Coal Combustion Residual Surface Impoundment Closures Dumfries, Virginia

GAI Project Number: C150132.00

December 2015



## Solid Waste Disposal Facility Part B Permit Application

Virginia Electric and Power Company
Possum Point Power Station
Coal Combustion Residual Surface Impoundment Closures
Dumfries, Virginia

GAI Project Number: C150132.00

December 2015

Prepared for: Virginia Electric and Power Company 5000 Dominion Boulevard Glen Allen, Virginia 23060-3308

> Prepared by: GAI Consultants, Inc. Richmond Office 4198 Cox Road Suite 114 Glen Allen, Virginia 23060



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# DEQ FORM SW PTB (Part B Application Form)



Solid Waste Disposal Facility Part B Application, DEQ Form SW PTB

			Solid Waste Pern		nit No.	SWP		
VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY			New Facility/Solid Waste Permit		X	Modification of existing Part B permit		
Facility Name:	Dominion Possum Point Power Station			Type of	Landfill: Surface Impoundment			
<u>-</u>	Lat:: 38° 32' 05"N Long: 77° 16' 57"W USGS 7.5-min Quad: Quantico							
Contact Person:	Cathy C. Taylor							
Contact Number:		3-2929		E-mail:	cathy.c.tayl	or@dom.coi	<u>m</u>	
Owner Nam			):	0			s, and Phor	ne:
David A. Craymer Virginia Electric and Power Company 5000 Dominion Boulevard Glen Allen, Virginia 23060			ny	David A. Craymer Virginia Electric and Power Company 5000 Dominion Boulevard Glen Allen, Virginia 23060				
Total Property Ac	reage:	7	14	Facility Boundary		Acreage: N.		A
Disposal Unit Boundary Acreage:		6	64 Total Ca		apacity (cubic yards):		Aprox 2,	750,000
Daily Disposal L	imit:	N	NA Estima		ted Site Life (years):		A	
Hours of Operation:		N			A			
Types of Wastes to be Accepted (check all that apply)								
Agricultural Waste		Contaminated Soil 1				Municipal Solid Waste		
Animal Carcasses		Debris Waste			Scrap Metal			
Asbestos, friable		Demolition Waste		ste		Sludge, industrial		X
Asbestos, non-friable		Fossil Fuel Combustion Products		n Products	X	Sludge, POTW		
Ash, non CCB/FFCP		Household Waste				Vegetative Waste		
Commercial Waste		Industrial Waste		te	X	Waste Tires		
Construction Waste		Institutional Waste		iste		White Goods		
Other Special Wastes 1  Please list:								
Does this f	facility use	or propose	e to use alt	ernate cov	er materia	ls? (Yes or No)	)	No
If yes list material(s):								
Solid Waste Management Activities (check all that apply)								
Convenience Center		Material Salvage				Opening	Burning	
Household Hazardous Waste Collection		Tire Processing (Chipping, Shredding, etc.)				Landfil	l Mining	
Mulching		Other						

		Liner 1	Design (che	eck all that apply)			
Sanitary Landfill CDD or Industrial Landfills							
Subtitle D Liner (9VAC20-81-130.J.1.a)				Compacted Clay (9VAC20-81-130.J.2.a)			
Pre-approved Alternate (9VAC20-81-130.J.1.b)				Synthetic Liner (9VAC20-81-130.J.2.b)			
Additional Alternate (9VAC20-81-130.J.1.c) 2				Alternate Liner (9VAC20-81-130.J.2.c) 2			
In-Place Soil (9VAC20-81-130.J.2.d) 3							
			Double Liner (9VAC20-81-130.J.2.e) <sub>4</sub>				
Final	Final Cover Design (check all that apply ) Leachate Management (check all that				apply)		
Standard	Final Cover (	9VAC20-81-160.D.2.c)		Leachate Recirculation 6			
Pre-approv	ed Alternate	(9VAC20-81-160.D.2.d)		Discharged directly to WWTP			
Pre-approv	ed Alternate	(9VAC20-81-160.D.2.e)	X	Treated onsite and discharged 7			
Additiona	l Alternate (9	VAC20-81-160.D.2.f) 5	PONEA	LTT ransported by a vehicle to an offsite WWTP			
Additional Alternate (9VAC20-81-160.D.2.f) 5 LTT ansported by a vehicle to an offsite WWTP  Other method 8							
Stamp Professio	ional Engineer in nal opinion, suita	space provided, meaning to the to the for the above named facility b Attachments are in c	Lic. No. 12-	C. KLAMUT  0. 048859  7-20/S  dge, information and baffer, the selected landfill liner and final coverific conditions and engineering principles. The designs proposed in pplicable have series, and ordinances.	r designs are, in the following		
Does this application include a Research Development and Demonstration Plan? (Yes or No),9 No							
The addition of liquids in addition to leachate and gas condensate from the same landfill for accelerated decomposition of the waste mass.							
Allowing run-on water to flow into the landfill waste mass							
If yes:		Allowing testing of the construction and infiltration performance or					
		alternative final cover systems.  Other measures to be taken to enhance stabilization of the westerness.					
Other measures to be taken to enhance stabilization of the waste mass.  Does this application include a variance request(s) to regulatory requirements? (Yes or No)							
		cation include a variant	ce requesi(s	) to regulatory requirements? (Yes or No)			
	If yes list regulatory citation(s):						
Footnotes: 1 - These was	ste types requ	ire additional information,		be included in Attachment XIII to receive approval. KIV.			
3 - Laboratory test results documenting permeability of in-place soil must be included in Attachment XV.							
4 - Witness zone monitoring program must be included on the Site Monitoring Plan in Attachment III.							
5 - Alternate final cover demonstration must be included in Attachment XVI. 6 - To receive approval for recirculation the irrigated area must be a Sanitary Landfill and underlain by a composite liner or a							
Research, Development, or Demonstration Plan must be included in Attachment XVII.							
	_			n approved VPDES permit must be included in Attac	hment VIII.		
8 - A description of the proposed method must be included in Attachment VIII.							

## Attachments. The following attachments must be submitted in the order prescribed Attachment I: Notice of Intent

only Sanitary landfills with a liner in accordance with 9VAC20-81-130.J.1 are eligible to submit RDD plans.

Attachment II: VDOT Adequacy Report and Approval Letter (If increasing Daily Disposal Limit) N/A Attachment III: Design Plans N/A Attachment IV: Closure Plan Attachment V: Post Closure Plan Attachment VI: Design Report N/A Attachment VII: Construction Quality Assurance (CQA) Plan and Technical Specifications Attachment VIII: Leachate Management Plan N/A Attachment IX: Landfill Gas Plans N/A Attachment X: Groundwater Monitoring Plan Attachment XE Groundwater Corrective Action Plan N-A Attachment XII: Financial Assurance Documentation N/A Attachment XIII: Special Waste Documentation N/A Attachment XIV: Alternate Liner Demonstration N/A Attachment XV: Laboratory Test Results Documenting Permeability of In-place Soils N/A Attachment XVI: Alternate Final Cover Demonstration N-A Attachment AVII: Research, Development, and Demonstration Plan N/A

Responsible Official Signature:	
in accordance with a system designed to as submitted. Based on my inquiry of the pers	ment and all attachments were prepared under my direction or supervision is sure that qualified personnel properly gather and evaluate the information son or persons who manage the system or those persons directly responsible ion submitted is to the best of my knowledge and belief true, accurate, and
Name: David A. Craymer	Title: VP. Power Generation System Operations
Signature: Naul AC	Date: 12/7/15

### SI-06 CHECKLIST (Closure Plan and Post-Closure Care Plan Review Checklist)



Closure and Post-Closure Plans Review Checklist				Date Received
Possum Point Power Station Coal Combustion Residual Surface		Complete	Technically	Date CR Due
Impoundment Closures	Provided (y/n)	(y/n)	Adequate (y/n)	
I. Closure Plan (Solid Waste Disposal Facilities/Units)	1101/100 (9711)	(77)	riacquate (y/11)	Comments
	Carlina A			
A. Closure Purpose and Plan Revision	Section A			
B. Closure Timeframes	Section B			
Anticipated date when wastes will no longer be received	Section B			
Anticipated date of final closure completion	Section B, Table 1 and 2			
Intervening closure milestones	Section B Table 2			
C. Closure of Surface Impoundments and Lagoons	Section C			
1. Removal	Section C.1			
2. Stabilization	Section C.2			
3. Decontamination	Section C.3			
4. Final Cover	Section D.1			
D. Closure of Landfill Units	Section D.1			
1. Final Cover Design	Section D.1			
a. Infiltration Layer	Not Applicable			
b. Barrier Layer	Section D.1			
c. Erosion Control/Protective Cover Layer	Section D.1			
d. Vegetative Support Layer	Section D.1			
2. Final Slopes	Section D.2			
3. Run-off Controls	Section D.3			
4. Settlement, Subsidence, and Displacement	Section D.4			
5. Soil Loss	Section D.1 and Att. 4			
E. Closure of Storage and/or Treatment Units	Not Applicable			
F. Schedule for Closure	Section B			
G. Closure Implementation	Section E			
1. Posting	Not Applicable			See Post-Closure Care Plan Section 2.3
2. Notification	Section E.1			
3. Certification	Section E.2			
H. Closure Cost Estimate	Section F			
I. Attachments	Yes			
Site Life and Cell/Phase/Area Capacity Calculations	Not Applicable			
2. Closure Design Plans	Attachment 2			CQA Plan and Specifications Provided as Attachment 3
3. Universal Soil Loss Demonstration	Attachment 4			
4. Slope Stability	Attachment 5			
5. Stormwater Calculations	Attachment 6			
6. Settlement, Subsidence, and Displacement	Attachment 7			
7. Closure Cost Estimate	Attachment 8			
II. Closure Plan (Solid Waste Management Facilities/Units)	Not Applicable			
A. Closure Purpose	Not Applicable			
B. Closure Timeframes	Not Applicable			
Anticipated date when wastes will no longer be received	Not Applicable			
Anticipated date of final closure completion	Not Applicable			
Intervening closure milestones	Not Applicable			
C. Inventory Removal & Disposal	Not Applicable			
1. Waste Removal	Not Applicable			

Closure and Post-Closure Plans Review Checklist				Date Received
Possum Point Power Station Coal Combustion Residual Surface		Complete	Technically	Date CR Due
Impoundment Closures	Provided (y/n)	(y/n)	Adequate (y/n)	
2. Decontamination	Not Applicable	(,, ,	, ,,,,	
3. Sampling & Testing Program	Not Applicable			
D. Closure Implementation	Not Applicable			
1. Posting	Not Applicable			
2. Certification	Not Applicable			
3. Post-Closure Use	Not Applicable			
E. Closure Cost Estimate	Not Applicable			
III. Post-Closure Care Plan				
A. Post-Closure Period	Section 2.1			
B. Post-Closure Contact	Section 2.2			
C. Inspection, Monitoring, and Maintenance Plan	Section 2.4			
1. Security Control Devices	Section 2.3			
2. Final Cover Integrity	Section 2.5			
a. Erosion Damage	Section 2.5.1			
b. Final cover settlement, subsidence, and displacement	Section 2.5.2			
c. Presence of woody-stemmed vegetation	Section 2.5.5			
3. Run-on and Run-off Controls	Section 2.5.3			
4. Leachate Collection System	Section 2.6.3			
5. Groundwater Monitoring System	Section 2.5.4/2.6.1			
6. Landfill Gas Monitoring System	Section 2.6.2			
D. Post-Closure Uses	Section 2.7			
E. Post-Closure Cost Estimate	Section 2.9			
F. Post-Closure Care Termination	Section 2.10			
G. Attachments	Yes			
1. Inspection Checklist	Attachment A			
2. Post-Closure Care Cost Estimate	Attachment B			
IV. Alternate Final Cover Demonstration	Not Applicable			
A. Infiltration Layer	Not Applicable			
Documentation and Calculations indicating equivalent reduction in cap				
infiltration	Not Applicable			
B. Erosion Layer	Not Applicable			
Documentation and Calculations indicating capability to maintain native plant				
grown and protect the infiltration layer	Not Applicable			

# **ATTACHMENT I Notice of Intent**



December 7, 2015 Project C150132.00

Justin Williams Virginia Department of Environmental Quality 629 East Main Street Richmond, Virginia 23219

Possum Point Power Station Notice of Intent, Surface Impoundment Closures Solid Waste Disposal Facility Part B Permit Application Dumfries, Virginia

Dear Mr. Williams:

In accordance with 9 Virginia Annotated Code (VAC) 20-81-450 of the Virginia Solid Waste Management Regulations, Virginia Electric and Power Company d/b/a Dominion Virginia Power (Dominion) is hereby requesting a Part B Permit for closure of the Coal Combustion Residual (CCR) surface impoundments located at the Possum Point Power Station (Station). The permit is being requested for closure of five inactive CCR Surface Impoundments in accordance with the applicable portions 9 VAC 20-81 et seq. and the Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule provided in 40 Code of Federal Regulations, Part 257.100, Subpart D, dated April 17, 2015.

The surface impoundments that will be closed at the Station include Surface Impoundments A, B, C, D, and E. The locations of the surface impoundments are shown on the drawings in the Closure Plan provided with this Notice of Intent (NOI). Surface Impoundments A, B, C, and E will be closed through the removal and consolidation of CCRs into Surface Impoundment D, which will be closed and covered with an impermeable cover system over the impoundment.

The enclosed permit application and this NOI are being provided to the Virginia Department of Environmental Quality for review. The following documents are included in this application:

- Solid Waste Disposal Facility Part B Permit Application;
- Closure Plan, including:
  - Closure Design Plans;
  - Construction Quality Assurance Plan and Technical Specifications;
  - Engineering Calculations; and
  - Closure Cost Estimate.
- Post-Closure Care Plan; and
- Groundwater Monitoring Plan.

Please confirm receipt of this NOI and provide any additional information required for the permitting process including applicable fees or additional information required. Please contact Mr. Dennis Slade with Dominion at 804.273.2658 or dennis.a.slade@dom.com with any questions or comments concerning this NOI and permit application submittal.

Sincerely,

**GAI** Consultants, Inc.

John R. Klamut, P.E. Engineering Manager

JRK/djz

